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10/035,544	12/28/2001	Randall Rex Calvert	501059.01	4703

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EXAMINER

LEWIS, RALPH A

ART UNIT

PAPER NUMBER

3732

DATE MAILED: 09/10/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.  
10/035,544

Applicant(s)  
Calvert

Examiner  
Ralph Lewis

Art Unit  
3732



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE three MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on Jun 24, 2003.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 37-41 is/are allowed.
- 6) ☒ Claim(s) 1-8, 12, 14-20, 22-25, 27-32, and 34-36 is/are rejected.
- 7) ☒ Claim(s) 9-11, 13, 21, 26, and 33 is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some\* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_ 6) ☐ Other:

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**Rejections based on 35 U.S.C. 112, second paragraph**

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 12, 20 and 34 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 12, 20 and 34 require that the plug material be one component of a two component bonding system which appears to contradict the limitation in the parent claims that the plug material is "fully polymerized."

**Rejections based on Prior Art**

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 4, 5, 14, 15, 17 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Vari (5,503,559).

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Vari discloses an optic fiber 94 (Figure 20, column 9, lines 58-62) that is resilient and sized for extending to the apex (apical portion) of a root canal. Optical fibers are inherently fully polymerized (note this inherence is presumed with applicant's own fiber optics as applicant's specification provides no explicit support for the "fully polymerized" limitation). The Vari optic fiber "fills the root canal of the tooth" and meets all the limitations of applicant's presently claimed "plug." In regard to claim 14, note the elongated support coupled at 94 (Figure 20).

Claims 1, 2, 4, 14, 15, 17, 22-25, 28-32 and 35 are rejected under 35 U.S.C. 102(b) as being anticipated by Weissman (5,326,263).

Weissman discloses a plug 11 made of a flexible optically transmissive material for insertion into a prepared root canal. An elongated fiber optic support is coupled to the plug portion.

Claims 25, 28, 32 and 35 are rejected under 35 U.S.C. 102(b) as being anticipated by Weil (5,284,443).

Weil discloses filling the root canal with light curing adhesive 90, inserting a fully polymerized optically transmissive plug 86 and exposing to light source 92. All the limitations of the present claims are clearly met by Weil.

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3, 5, 16, 27 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weissman (5,326,263).

The use of translucent materials, conventional materials (re claim 5, note column 7, lines 18-29) and adhesives with conventional viscosities would have been obvious to one of ordinary skill in the art as a matter of routine practice in carrying out the invention described by Weissman.

Claims 6-8 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weissman (5,326,263) in view of Billet et al (WO 98/11842).

Billet et al teach that it is often desirable to include radiopaque materials in fiber optic root canal fillings so that the fillings can be detected by x-ray. To have included conventional fiber optic materials in the fiber optic plug of Weissman so that it could be view by x-ray as taught by Billet et al would have been obvious to one of ordinary skill in the art.

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Claims 27, 29 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weil (5,284,443).

Weil does not disclose the viscosity of the adhesive 90, however, one of ordinary skill in the art would have found the particular range of viscosities claimed to have been obvious as a matter of routine. In regard to claim 29, the use of a conventional fiber optic light source for light source 92 would have been obvious to one of ordinary skill in the art.

#### **Response to Applicant's Remarks**

Applicant's remarks have been considered, but are deemed moot in view of the new grounds of rejection.

#### **Allowable Subject Matter**

Claims 37-41 are allowed.

In regard to claims 9-11, 19 and 33, the requirement that the phosphorescent material be part of the material that is fully polymerized overcomes the teaching by Vari. Accordingly claims 9-11, 19 and 33, as well as 13, 21, and 26 are objected to as being dependent on a rejected base claim, but would be allowable if rewritten in independent form.

Claims 12, 20 and 34 are too contradictory to render a meaningful opinion on.

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**Action Made Final**

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MEP. § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication should be directed to **Ralph Lewis** at telephone number **(703) 308-0770**. Fax (703) 872-9303. The examiner works a compressed work schedule and is unavailable every other Friday. The examiner's supervisor, Kevin Shaver, can be reached at (703) 308-2582.

R.Lewis  
September 3, 2003

  
Ralph A. Lewis  
Primary Examiner  
Au 3732